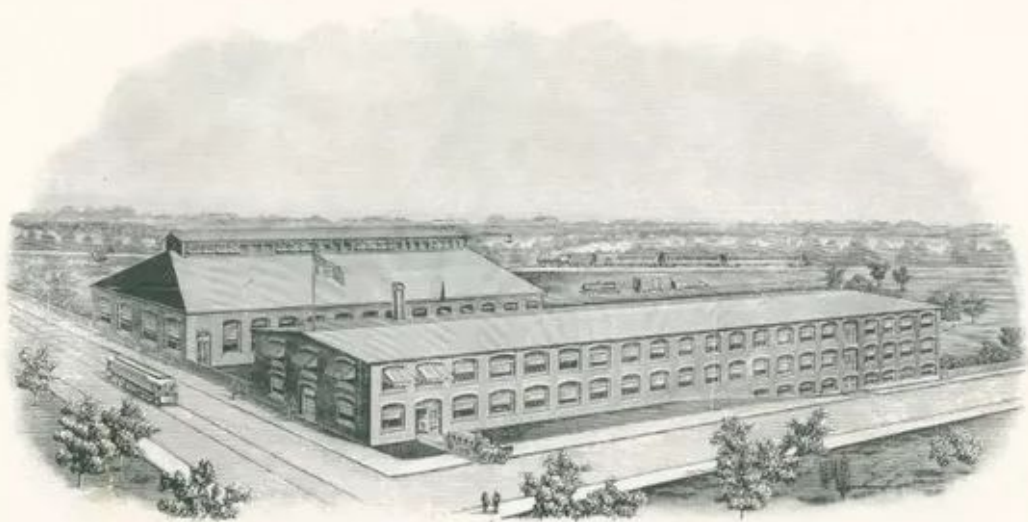


THE BULLARD AUTOMATIC WRENCH



“NEVER
CORNERED”



BULLARD AUTOMATIC WRENCH COMPANY

INCORPORATED
MAIN OFFICE AND WORKS
PROVIDENCE, R. I., U. S. A.

FOR SALE BY



Foreword

THE BULLARD AUTOMATIC WRENCH is a radical departure in wrench construction, being designed on scientific principles to overcome all the defects of other wrenches. Not merely a new wrench with this or that feature improved, but a distinctly novel wrench operating on a new principle, the only right one, which gives increased range, maximum power and greatest endurance. The claims which we hereafter put forth for this wrench are so strong as to appear almost incredible, but a careful analysis of the reasons for its superiority will substantiate all we say.

Moreover, we have proved every point by actual demonstration, so that we unreservedly guarantee the BULLARD WRENCH to do all that is claimed.

If, after reading this little booklet, you fail to be convinced, then give us a chance to make some comparative tests.





Principle of Operation

FIRST and foremost, the BULLARD WRENCH does not convert the power applied to the handle into a crushing strain. All other wrenches do. This can easily be illustrated by trying or testing an old-time wrench in operation. The handle, on a common wrench, may be considered fulcrumed at the point where it is held or riveted together with its operative end, the lower jaw engaging the pipe. It must be evident that a downward pressure, applied to the handle, will be transmitted through the jaw in the direction, directly toward the center of the pipe. The pressure on the pipe, then, is a crushing strain, increased several fold by leverage over the power applied to the handle. If the pipe and the wrench can stand this strain, your joint will loosen up, but if the joint is a stubborn one, the chances are the pipe will give first and be crushed. In time the wrench itself will succumb to this abnormal strain and the jaws will be bent out of alignment.

No wrench operating on this principle can stand the pressure very long—that's why you see so many broken-backed wrenches lying around. The material may be all right, and the parts heavy enough, but the strain is too great. The principle is all wrong.

*An engine will not turn with the crank on the "dead center."
It's the same principle with the ordinary wrench.*





Construction

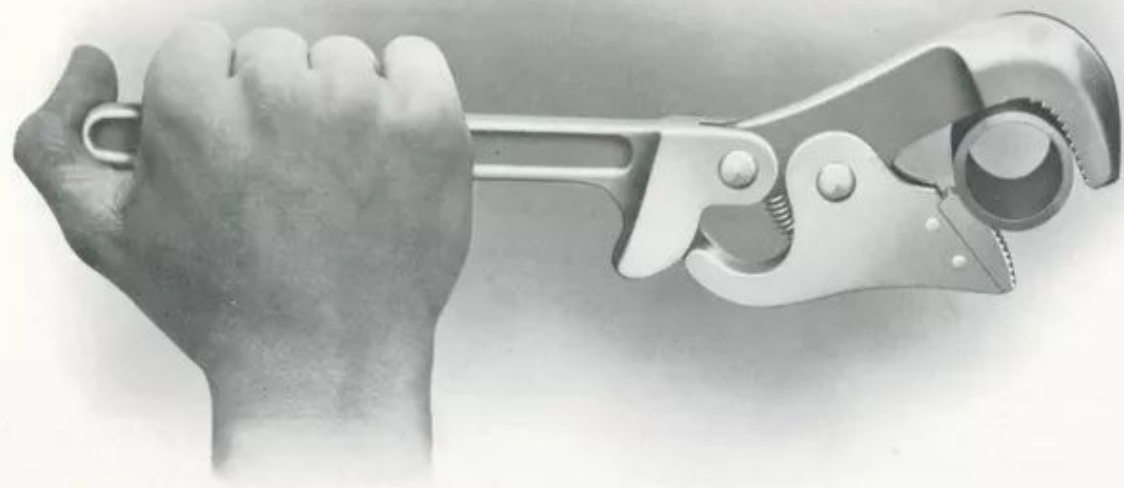
IN EVERY part, the BULLARD is constructed to stand the severest strains. The outer jaw is made especially strong where, in other structures, it is weakest. In all other wrenches there is no reinforcement at the angle of this jaw, while in the BULLARD the section is greater here than at any other point. The whole thickness of the bearing part of the jaw is extended around the bend, and its width is increased at this point.

The inner jaw, which takes the brunt of the work, is made of solid bar steel, machined to shape.

Note that the removable tooth section is let into the jaw to make it firm and rigid without dependence on the rivets. This part is made of best tool steel, perfectly hardened.

Even in the comparatively unimportant feature of the spring, care has been taken to provide for the longest wear. This spring is merely auxiliary, having no part in the actual operation of the wrench. It simply serves to keep the jaws together when the wrench is used with the jaw side up. Under ordinary conditions the weight of the jaws tends to keep them closed. However, to give the spring the desired resiliency and longest wear, it is made extra long, extending clear through the jaw and bearing on the tooth piece; see sectional view.





"Never Cornered"

THE BULLARD CAN'T BE CORNERED. The jaws take hold without lapping beyond the pipe, so that the wrench can be applied to a pipe laid close to a floor, wall or ceiling. The jaws grip the instant pressure is applied to the handle, without the slightest lost motion. You can get right up in a corner and work in a limited space, because every inch of movement counts.

Then, again, the BULLARD is almost a third shorter than an ordinary wrench of the same capacity, so that it takes considerably less movement at the end of the handle to get an equal effect at the jaws.

It has been demonstrated that a movement of an inch at the end of the handle of a BULLARD will accomplish more than a four-inch movement with the ordinary wrench.

You can carry a smaller "kit" if you carry a BULLARD—and your wrench will weigh only half as much.





Bullard Automatic Wrench

Patented Oct. 27, 1903

RETAIL PRICE LIST AND DIRECTIONS FOR ORDERING

No.	Capacity	Pipe Capacity	Price	Extra Removable Jaws Price
0	0 inch to 3-4 inch	1-2 inch	\$0.75	
1	1-8 inch to 1 1-4 inches	1 inch	1.15	\$0.25
2	3-4 inch to 1 7-8 inches	1 1-2 inches	1.35	.35
3	1-2 inch to 2 1-2 inches	2 inches	1.80	.50
4	3-4 inch to 3 inches	2 1-2 inches	2.75	.50

When ordering, give number of wrench desired, and specify whether you desire shipment by express or freight. If shipping directions are not given, we ship the most economical way.

With small orders from unknown parties, we require check, money order or currency to the amount of bill.

When wrenches are sent by express, C. O. D., the express charges for collection will be added.

All wrenches are carefully inspected before shipment, but should any defect be found upon delivery, promptly notify us and satisfaction will be given without delay. We mean to have our wrenches perfect in every particular.

Small orders receive the same careful attention as large ones. We aim to have them REPEATED.

Address all communications to the Company.

BULLARD AUTOMATIC WRENCH COMPANY

(Incorporated)

P. O. Box 158
Providence, R. I.

Main Office and Works
East Providence

Cable Address: "Bullard," Western Union Code, revised edition. Liebers Code.

